

Teaching Creation: A Modular Approach
David Bosworth
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Appendix 3
Bibliographic Essay

This bibliographic essay details some useful resources for teachers who may wish to pursue a modular approach to teaching creation as described in "Teaching Creation: A Modular Approach." It does not include extensive discussion of scholarship on Genesis, since teachers will already be familiar with this literature. However, biblical scholars may be wary of discussing the creation-evolution debate without a firmer grasp of the scientific and other issues. The essay indicates resources that may be useful background reading for teachers and indicates what readings have proven to work well with college undergraduates.

Bookstore shelves are filled with books on evolution for the interested layperson. Several of these works are specifically oriented toward the ongoing creationism debates. Eugenie C. Scott, *Evolution v. Creationism: An Introduction* (Berkeley: University of California Press, 2004) claims to provide "one-stop shopping" for material on all the various aspects of the debate (scientific, religious, legal, political, historical, educational). The first part deals with the origins of evolutionary and creationist theory, and the second part discusses the history of the debate between them. The third part may be most useful to educators, since it collects excerpts from diverse documents organized around the various aspects of the debate. It also includes an excellent bibliographic essay and a list of relevant websites. Tim M. Berra, *Evolution and the Myth of Creationism: A Basic Guide to the Facts of the Evolution Debate* (Stanford: Stanford University Press, 1990) is exactly what the title claims to be. It is an excellent place to begin for those who wish to refresh their evolutionary knowledge and how scientists respond to creationists. Similarly, *Scientists Confront Creationism* (ed. Laurie R. Godfrey; New York: Norton, 1983) contains several essays about evolution and the creationism movement. Some articles refute specific creationist claims that a teacher is likely to be asked about in class (such as the allegation that the laws of thermodynamic make evolution impossible). Although dated, the work is still valuable. More recently, *Intelligent Thought: Science Versus the Intelligent Design Movement* (ed. John Brockman; New York: Vintage, 2006) is a similar work devoted to the more current "intelligent design" debates. The essays are extremely helpful, some are accessible to undergraduates, but there is no bibliography. It includes an appendix with judicious selections from the judge's decision in the *Kitzmiller v. Dover Area School Board* case. All the documents from the *Kitzmiller* case (such as trial transcripts, expert witness reports, and some articles about it) may be found online at <http://www2.ncseweb.org/wp/> along with materials from similar cases. The National Council on Science Education helpfully tracks such cases. Ernst Mayr, *What Evolution Is* (New York: Basic Books, 2001) is an excellent overview of evolution and refreshing for not being burdened with refutations of creationism.

For background on the constitutional issues, send students to http://www.religioustolerance.org/scs_intr.htm, which includes the text of the first amendment, Thomas Jefferson's "wall of separation letter" and summaries of landmark cases, including some relevant to teaching creationism. Another useful website on the creation-evolution debate is <http://www.talkorigins.org>. It includes several useful "frequently asked questions (faqs)," on such topics as the varieties of creationism.

Joan Roughgarden, *Evolution and Christian Faith: Reflections of an Evolutionary Biologist* (Washington: Island Press, 2006) is a short book by an Episcopalian scientist. Her prose is very accessible to students and makes the essentials of evolution easily understandable. Her chapter on Roman Catholicism is a lucid summary and critique of recent Catholic discussion, sparked in large measure by Cardinal Schonborn. The documents she mentions are scattered around the internet, but can be found by searches. I often assign to students "Evolution and Creationism: A View from the National Academy of Sciences" (2nd ed.) available online at http://books.nap.edu/catalog.php?record_id=6024/. This short work explains the theories of the Big Bang and evolution and how scientists arrived at these theories (with some technical detail). It also distinguishes the scientific from the common definition of "theory" (a common problem for students) and responds to selected creationism critiques. For more on the Big Bang, see especially Simon Singh, *Big Bang: The Origin of the Universe* (New York: Harper, 2004). I sometimes discuss with classes why evolution has become so contested, but the Big Bang has not.

Very recently (since about 2000), modern scientists have been able to answer questions previously thought unanswerable (like 'when did humans first start wearing clothes?'). The advances have come through genetic science and an excellent and current summary of these findings may be found in Nicholas Wade, *Before the Dawn: Recovering the Lost History of Our Ancestors* (New York: Penguin, 2006). A growing area of evolutionary theory attempts to account for moral behavior through evolution. Although a teacher may prefer to skip this aspect of evolutionary theory, it is fascinating reading. See especially Charles Darwin, *The Descent of Man* (chaps. 3–5); Robert Wright, *The Moral Animal: Why We Are the Way We Are: The New Science of Evolutionary Psychology* (New York: Vintage, 1994); Matt Ridley, *The Origins of Virtue: Human Instincts and the Evolution of Human Behavior* (New York: Penguin, 1998); Dean Hamer, *The God Gene: How Faith is Hardwired into Our Genes* (New York: Random House, 2004); David Sloan Wilson, *Darwin's Cathedral: Evolution, Religion, and the Nature of Society* (Chicago: University of Chicago Press, 2002). Edward O. Wilson, *Sociobiology: The New Synthesis* (25th Anniversary Edition; Cambridge, Mass.: Belknap Press, 2000) is a seminal work in the field, but fairly technical.

Since students should see Genesis 1–3 in relation to other creation narrative, I typically assign the Babylonian Creation Epic (Enuma Elish) from *The Context of Scripture: Canonical Compositions from the Ancient World* (vol. 1; Leiden: Brill, 2003) 390-402. Students find the reading difficult, so they may need help discerning

the outlines of the story before being sent to read the text. This ancient Near Eastern text is too important to the biblical context to dispense with, but students can more easily understand the creation stories in Plato's Protagoras (a retelling of Greek myth) and Jean Jacques Rousseau, *On the Origins of Inequality* (Part II). I sometimes use these stories to indicate the contrasting worldviews and values of the Israelites, Babylonians, ancient Greeks, and modern Enlightenment thinkers.

One of the purposes of the creation module is to show students the conflict between traditional religious values and modern Enlightenment values. When we discuss the pedagogical aspect of the debate, I assign Immanuel Kant, "An Answer to the Question: 'What is Enlightenment?'" in Kant, *Political Writings* (trans. H.B. Nisbet; Cambridge Texts in the History of Political Thought; Cambridge University Press, 1991) 221-34. Within a broader discussion of pedagogy, the essay forcefully raises the question of whether educational institutions should reinforce traditional values, or call all value systems into question. The issue of autonomy (and Kant) returns in our discussion of Genesis 3, when I assign Immanuel Kant, "Conjectures on the Beginning of Human History" in Kant, *Political Writings*, 54-60. While Christian tradition sees Genesis 3 as a story of "the fall" (see handout related to "Teaching Creation: A Modular Approach" for selections showing the development of original sin) Kant rereads it as a 'rise,' or positive story about humans using reason to overcome animal instinct and construct civilization. Kant thereby inverts the traditional Christian claim that all humans need salvation. Some students agree with Kant on grounds that life in Eden seems boring (no Starbucks or PlayStation).

The same issue of autonomy recurs in discussion of the gender issues in Genesis 2-3. I normally assign Phyllis Trible, "Eve and Adam: Genesis 23 Reread," *Andover Newton Quarterly* 13 (1973) 251-58. John J. Collins, *The Bible After Babel: Historical Criticism in a Postmodern Age* (Grand Rapids: Eerdmans, 2005) is another useful reading that summarizes Trible, but also the scholarship that has been published since 1973. The above-noted works on the evolution of human behavior include discussion of the development of patriarchy. I also want students to see the traditional patriarchal interpretations, so I created a handout with selections from early Christian literature (see handout related to "Teaching Creation: A Modular Approach").